

CLAIMS

1. A surface mountable clip, comprising:
a metal structure having a plurality of planar sides generally formed into a U-shape;
5 an opening formed by the metal structure being sized to receive and retain an electrical component;
a bottom planar side of the metal structure for mounting the generally U-shaped metal structure on a printed circuit board (PCB); and
a hole formed through the bottom planar side.
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2. The surface mountable clip of claim 1, wherein the hole formed through the bottom planar side is configured to break a surface tension of molten solder over a solder pad of the PCB during a reflow soldering process.
- 15 3. The surface mountable clip of claim 1, further comprising:
a first leg extending laterally from the bottom planar side.
4. The surface mountable clip of claim 1, further comprising:
a first leg extending laterally from a first edge of the bottom planar side; and
20 a second leg extending laterally from a second edge of bottom first planar side which is opposite the first edge.
5. The surface mountable clip of claim 1, further comprising:
a first notch formed along a first edge of the bottom planar side.
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6. The surface mountable clip of claim 1, wherein the generally U-shaped metal structure is a single integrally formed structure.
7. The surface mountable clip of claim 1, wherein the generally U-shaped metal
30 structure comprises a polygon-shaped metal structure.

8. The surface mountable clip of claim 1, wherein the generally U-shaped metal structure is formed with at least seven planar sides.

9. The surface mountable clip of claim 1, comprising an antenna clip configured
5 to receive and retain an electrical component comprising an antenna.

10. The surface mountable clip of claim 1, further comprising:
a first leg extending laterally from the bottom planar side; and
wherein the first leg is utilized by a vision system to position the clip onto a printed
10 circuit board (PCB).

11. A printed circuit board (PCB) comprising:
a substrate;
a solder pad formed over the substrate;
15 a surface mountable clip which includes:
a metal structure having a plurality of planar sides generally formed into a U-
shape;
an opening formed by the generally U-shape metal structure being sized to
receive and retain an electrical component;
20 a bottom planar side which is mounted over the solder pad to support the
generally U-shaped metal structure; and
a hole formed through the bottom planar side.

12. The PCB of claim 11, wherein the clip further comprises:
25 a first leg extending laterally from the first planar side.

13. The PCB of claim 11, wherein the clip further comprises:
a first leg extending laterally from a first edge of the first planar side; and
a second leg extending laterally from a second edge of the first planar side which is
30 opposite the first edge.

14. The PCB of claim 11, wherein the clip further comprises:
a first notch formed along a first edge of the bottom planar side.

15. The PCB of claim 11, wherein the generally U-shaped metal structure is a
5 single integrally formed structure.

16. The PCB of claim 11, wherein the generally U-shaped metal structure
comprises a polygon-shaped metal structure.

10 17. The PCB of claim 11, wherein the generally U-shaped metal structure has at
least seven planar sides.

18. The PCB of claim 11, wherein the surface mountable clip comprises an
antenna clip.
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19. The PCB of claim 11, further comprising:
a first leg extending laterally from the bottom planar side; and
wherein the first leg is utilized by a vision system to position the clip onto the PCB.

20 20. The PCB of claim 11, further comprising a second surface mountable clip
mounted on the PCB for further retaining the electrical component.

21. A mobile communication device comprising:
a printed circuit board (PCB);
25 a radio frequency (RF) transceiver carried on the PCB;
an antenna coupled to the RF transceiver;
at least one surface mountable antenna clip carried on the PCB which retains the
antenna;
the at least one surface mountable antenna clip including:
30 a metal structure having a plurality of planar sides generally formed into a U-
shape;

an opening formed by the generally U-shape metal structure being sized to receive and retain the antenna;

a bottom planar side which is mounted over a solder pad on the PCB to support the generally U-shaped metal structure; and

5 a hole formed through the bottom planar side.

22. The mobile communication device of claim 21, wherein the clip further comprises:

a first leg extending laterally from the first planar side.

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23. The mobile communication device of claim 21, wherein the clip further comprises:

a first leg extending laterally from a first edge of the first planar side; and

a second leg extending laterally from a second edge of the first planar side which is

15 opposite the first edge.

24. The mobile communication device of claim 21, wherein the clip further comprises:

a first notch formed along a first edge of the bottom planar side.

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25. The mobile communication device of claim 21, wherein the generally U-shaped metal structure is a single integrally formed structure.

26. The mobile communication device of claim 21, wherein the generally U-shaped metal structure comprises a polygon-shaped metal structure.

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27. The mobile communication device of claim 21, wherein the generally U-shaped metal structure is formed with at least seven planar sides.

28. The mobile communication device of claim 21, wherein the bottom planar side is generally rectangular.

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29. The mobile communication device of claim 21, wherein the at least one surface mountable antenna clip comprises a second surface mountable antenna clip for further retaining the antenna.

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30. The mobile communication device of claim 21, further comprising:
a first leg extending laterally from the bottom planar side; and
wherein the first leg is utilized by a vision system to position the clip onto the PCB.

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